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Gantt, Henry Laurence

Efficiency and democracy

New York

[1918]

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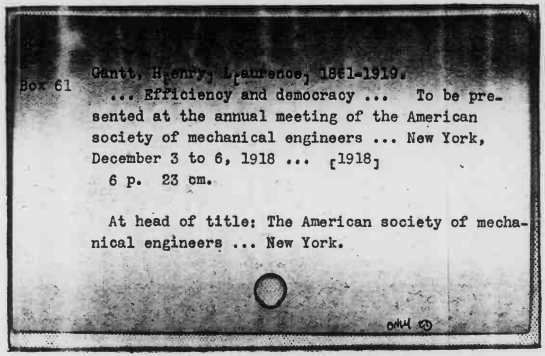
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THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

29 WEST THIRTY-NINTH STREET, NEW YORK

EFFICIENCY AND DEMOCRACY

BY

H. L. GANTT

MEM.AM.SOC.M.E.

To be presented at the Annual Meeting of The American Society of Mechanical Engineers, 29 West 39th Street, New York, December 3 to 6, 1918.

The Society as a body is not responsible for the statements of facts or opinions advanced in papers or discussions (C 55).

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EFFICIENCY AND DEMOCRACY

By H. L. Gantt, New York, N. Y.
Member of the Society

The author raises the question as to why the word "efficiency" has fallen into disrepute in connection with industry when, as a matter of fact, efficiency, both individual and collective, is more needed now than ever before.

The reason seems plain — that in the past efficiency has been measured by the dollars acquired rather than by the goods produced.

The product of a factory should bear only the expense used to produce it. It cannot bear the expense of idle machinery which did not contribute to its production. Although the owner may feel that he is entitled to interest on money invested, even if not producing, it is coming to be understood that idle capital is no more entitled to wages than idle labor and the manufacturer should consider the elimination of idleness as essential and the production of goods at full capacity as a necessity. This is in accord with the democratic spirit of the times which demands that goods be produced in a way to benefit the community rather than those who control the industries.

WHY has the word efficiency, which should stand for so much, fallen into disrepute in this country? That it has fallen into disrepute cannot be gainsaid, both with the business man and the workman. We all recognize the importance of both individual and collective efficiency. This being true, there must have been some fatal error in the management of the campaign which at the end of twenty years has made the very name a byword.

2 It is not to be questioned that many men who have devoted their time to this subject have very much improved our industrial processes and the productivity of our manufacturing plants. Yet in the mind of the average business man or mechanic the term "efficiency engineer" raises a feeling of hostility.

3 Today we need efficiency, both individual and collective, to a far greater extent than we ever needed it before, yet it seems that we must do the work of promoting it under some other guise if we would really have it accepted and approved.

4 To some of us the reason seems plain, simply that we have in

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For presentation at the Annual Meeting, December 1918, of The American Society of Mechanical Engineers, 29 West 39th Street, New York. All papers are subject to revision.

the past measured the "efficiency of our business" by the dollars acquired rather than by the goods produced. The efficiency engineer of the past has in too many cases devoted himself exclusively to making more efficient the business of securing dollars. In other words, he has served the business system primarily in the accumulation rather than in the production of wealth.

5 A business system bent on the accumulation rather than on the production of wealth, which would even curtail the production of wealth if thereby a larger measure could be brought into its own coffers, must needs finally run to the limit of its tether, and a method which makes more efficient such a system shortens the time which it has to run. An efficiency engineer who, consciously or unconsciously, served the business system in the exploitation of workmen, necessarily got the ill-will of the workman. He later got the ill-will of the business man, who found that the amount of wealth he could get by exploitation was strictly limited. I am not claiming that all efficiency engineers have done this, nor that even those who have done it have been conscious that they were producing a condition to which there must be an end. They were simply serving "business as usual," which puts more effort in harvesting the crop than in producing it.

6 When the great war broke out in 1914, it became evident to all those who gave it serious consideration that the production of goods for the benefit of the community, and not the production of wealth for the benefit of those who control the industries, was the task which had been set the nations engaged. It took England more than a year to learn this lesson, and we should have been fully prepared for it in 1917 when we were drawn into the maelstrom. That we were not prepared for it, and that many believed we could still continue business as usual, is now history. We have learned, however, that production for the benefit of the community was the only basis on which we could carry the war to a successful conclusion. This has been emphasized by the elimination of "non-essential" industries.

7 There is another reason why the term efficiency has been brought into disrepute. In the past our cost-keeping methods have always loaded on to the part of the shop which produced the goods the total expense of the shop, including the part that was idle. For instance, in a shop having two expensive machines, it was the habit to load on to the product the expense of both machines, whether the goods were produced by one or by both. Under

such conditions, if one machine did the work of two, the product was still charged with the expense of both, and the full benefit from the increased efficiency was not apparent to the owner, who saw only the saving in wages. He did not see the saving in plant. He did not comprehend clearly that if he doubled the output of his machine he could double the output of his plant without additional expense. In other words, that he was also making his capital twice as efficient. It is hard to see why he did not see this, except that the system of cost-keeping seemed designed to hide it. The term "efficiency" then seemed to have no connection with capital or investment, but only with labor.

8 Under such conditions there was but little inducement to the owner to make his machines produce more, and the reverse of an inducement to the workman, who was thereby laid off or saw his friend laid off. This fatal error which caused the opposition of the workman, and the lack of sympathy on the part of the employer, was evidently due to a false accounting system, which was devised to put all the burden of inefficiency on the workman.

9 When the great war started in 1914, and the wheels of industry slowed down to such an extent that it was impossible for the product turned out to bear the expense which had previously been distributed over a production three or four times as large, most people said, "These are extraordinary times; therefore we shall have to lay our cost system aside to keep till the war is over."

10 Some people, however, realized that a system which is not good for an emergency, when it is most needed, has something radically wrong about it, and set to work to find out what the flaw was, and this was the answer they arrived at:

11 The product of a factory must bear only the expense used to produce it. It cannot bear the expense of idle machinery which did not contribute to its production. This statement is such a radical departure from the ordinary cost-keeping system that it produces a shock to the business man who has a theory that he must somehow or other get back all of his expenses. He seems to feel that he is entitled to interest on all the money he has invested, whether it produces anything or not. Under such conditions he is not seriously worried so long as he can sell his product for a price high enough to give him the profit he considers himself entitled to.

12 Some of the keener business men, however, have seen the flaw in this argument, and have realized that idle capital is no more entitled to wages than idle labor, and have begun seriously to study

their plants to find out how they can use them to their full capacity. The result of this investigation is twofold:

a It does not result in laying off men, but gives employment to more men, which secures the good-will of the worker

b It not only reduces the expense of maintaining machinery in idleness, but turns out a greater product from which revenue is gotten.

13 Some would say that this is a beautiful theory, but it doesn't work that way. I answer unhesitatingly, after more than three years' trial, that it does work that way and that none of those people who have adopted it would for a moment think of going back to the antiquated method of cost-keeping which they have given up.

14 The keynote of such a system is the elimination of idleness and the production of goods. Moreover, there is no antagonism in such a scheme between employer and employee, for each gets the reward for what he does.

15 To the conservatives this would seem almost revolutionary, and fraught with consequences of which they cannot see the end, but it is democratic and absolutely in harmony with the patriotic doctrine which is being preached. It enables us to change automatically our slogan of "business as usual" into "business for production and victory."

16 In a few words, then, if we will eliminate our false cost-keeping methods, and put in those that are correct, we shall not only benefit both employer and employee, but go a long way toward the democratization of industry.

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